

Advanced Monitoring Systems

You're Invited to Submit Technologies For ETV/AMS Verification Tests Vendors, developers, manufacturers, and owners of air and water monitoring technologies are invited to submit commercially ready products for verification under the Advanced Monitoring Systems (AMS)* pilot. Here is how the process works and the benefits of verification:

Selecting technologies for verification. Vendors interested in obtaining objective third-party performance data on their product, and a competitive advantage in the marketplace, can submit their technology for verification. Battelle staff will evaluate the technologies vendors submit for verification. Additional information about the technology may be requested from the vendor to complete this evaluation. Members of the AMS pilot's stakeholder committees - including representatives from

regulatory agencies, industry, trade associations, and environmental groups – will assist Battelle in prioritizing the technologies submitted. Then Battelle notifies vendors when a verification test of their technology is being considered and invites additional vendors to participate. (Note: EPA funds are currently available to partially support verification testing, as an incentive for vendors to participate and to move the pilot toward privatization.)

Form to submit. Interested companies or individuals should complete the attached *Application for Technology Verification* and mail or fax it to Tom Kelly, Battelle, 505 King Ave., Columbus, OH 43201-2693; Ph. 614-424-3495; fax 614-424-3638.

Path to verification. Once a technology or group of technologies has been selected for verification testing, Battelle will develop a draft test/quality assurance (QA) plan.

Participating vendors and representative stakeholders will provide advice and suggestions in developing the plan. The draft plan will be reviewed by participating vendors, stakeholder committee members, and U.S. EPA representatives. Then the plan is revised by Battelle and sent to participating vendors for approval. The verification test will be conducted according to the approved test/QA plan.

* AMS refers to the Advanced Monitoring Systems pilot, managed by Battelle in partnership with the U.S. Environmental Protection Agency (EPA). The AMS pilot is one of 12 pilots in EPA's Environmental Technology Verification (ETV) Program. The goal of the ETV program is to accelerate the development and use of improved technologies through third-party verification testing and reporting of the technologies' performance. For additional details about ETV, go to http://www.epa.gov/etv. Or go directly to the AMS pilot pages at: http://www.epa.gov/etv/07/07_main.



Participating vendors receive a *Verification Statement* summarizing results, signed jointly by Battelle and EPA senior management.

Vendor involvement. Vendors having their technologies verified by the AMS pilot will be expected to:

- Review and comment on the test/QA plan and the *verification report* on their technology
- Pay a participation fee to supplement EPA funding
- Commit commercially ready unit(s) for the duration of verification testing
- Provide operation and maintenance support during verification testing, as necessary.

Products of test. Participating vendors receive a v*erification report* stating quantitatively the performance of the technology (based on third-party, quality assured data under realistic test conditions) and a verification statement summarizing results, signed jointly by Battelle and EPA senior management. Separate reports and statements are issued for each technology tested and each describes the performance of that technology only. There are no intercomparisons or rankings of the verified technologies. A vendor can distribute the v*erification statement* to attract prospective users of the technology and refer interested parties to the statement and report posted on EPA's ETV website (http://www.epa.gov/etv).

Test benefits. Feedback from vendors who have participated in ETV verification tests confirm the benefits to their companies. Here are examples:

• You'll have objective, credible, EPA quality-assured performance data for potential buyers of your air or water monitoring technology

- Your technology will have greater acceptance by state and local agencies
- Your technology will be widely publicized in ETV web pages, publications, and trade show exhibits
- Participants in previous tests report immediate advantages, including the credibility of test reports, information for regulators, and international marketing
- You'll join an expanding "club." As of January 2000, 57 technologies were verified, 105 technologies were undergoing verification tests, and approximately 200 additional applications for tests were under consideration
- Your competitive playing field can be leveled
- New international—as well as national—markets can open to you (ETV has given presentations at conferences throughout the world, e.g., at the UN, NAFTA, and World Bank in the U.S. and in many other countries; the ETV website averages 1,700 international "hits" per month)
- Investors can have added confidence in your technology.

Priority technology needs. AMS pilot stakeholders have given high priority to the following technologies. Vendors with these technologies are invited to join verification planning efforts. Vendors with technologies not listed are also invited to contact Battelle about scheduling a verification test.

Air

• Real-time field monitors to indicate the amount or chemical composition of fine particulate matter in ambient air

- Continuous emission monitors (CEMs) for mercury in source emissions
- Onboard emission monitors capable of determining vehicle tailpipe emissions while the vehicle travels on the highway.

Water

- Field-deployable multi-probe systems for determining conventional parameters (e.g., pH, conductivity, ammonia, dissolved oxygen [DO], chlorophyll A) in surface waters
- Portable quantitative analyzers or test kits for determination of metals (e.g., lead, copper) and other constituents (e.g., nitrate) in water
- Methods to detect and/or quantify biological contaminants (e.g., coliform, E. coli, giardia, cryptosporidium) rapidly (i.e., less than one hour).

Technologies already verified.

Tests have been completed or are in progress for the following technologies. Vendors interested in future tests of these technologies should complete and send the attached *Application for Technology Verification* to Dr. Kelly.

- Portable analyzers for nitrogen oxides applicable to small emission sources
- Continuous monitors for turbidity in water streams
- Open-path optical monitors for air pollutants (e.g., FTIR, UV, tunable diode laser).

